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## ORIGINAL CONTRIBUTIONS.

*Clinical Lectures on Diseases of the Eye.* By E. L. HOLMES, M. D., Lecturer on Diseases of the Eye in Rush Medical College, and Surgeon to the Chicago Charitable Eye and Ear Infirmary.

### ASTHENOPIA.

GENTLEMEN,—The power of endurance, or, in popular language, the "strength" of the eye, is very different in different individuals, and not unfrequently in the same individual at different periods of life. While some persons can read, write, or engrave, for instance, many hours daily, and even at night, without fatigue, and are not disturbed by unsuitable light, or by motion, as in riding, others suffer fatigue and pain from the slightest effort to look upon near objects.

The class of cases to which I wish to call your attention today, is characterized, as you have already seen in several patients at the clinic, by inability to use the eyes upon near objects without pain in and around the eyes, temporary indistinctness of objects, with more or less congestion of the different tissues of the eye. To this condition of the eyes has been given the term Asthenopia—weak-sightedness. It should be remembered that this term signifies want of endurance, and not indistinctness of vision, as in incipient amaurosis.

In studying the phenomena peculiar to this condition, there

are three principal elements to be investigated, which in fact divide these cases into three distinct classes.

The first class comprises those cases in which there is a pathological change in the ciliary muscle, not well understood, from which there is a debility or insufficiency of power, analogous to want of innervation in the general muscular apparatus of the body, in consequence of which exercise soon produces a sense of fatigue more or less painful.

The muscle cannot long remain in a state of contraction without a painful effort. It soon becomes wearied, and in spite of the patient it relaxes. In consequence of this, the convexity of the lens is decreased, and the focus of the eye is thrown behind the retina; objects become indistinct, the letters and lines for instance, in reading, "run together." At first there is a mere sense of weariness, but rest for a few moments, and looking at distant objects, restores to a certain degree the energy of the muscle; the sense of fatigue being relieved, the patient is able to use the eyes again for a short period, without inconvenience. Students, tailors, engravers and seamstresses are especially liable to this disease of the eyes. In the early stages of the affection, patients are able to labor many hours daily with only a feeling of weariness in the eyes at night, which is entirely relieved by sleep. After a period of time, however, such individuals experience fatigue each day earlier than before, and finally, are unable to pursue their occupations without pain and without constant demand for rest. If patients do not heed the warning which these symptoms give, the eyes become painful and congested at the slightest effort, and to such a degree often, that sleep does not relieve them. Persistent use of the eyes in this condition is liable to produce symptoms of retinitis, which may terminate in amaurosis. Fortunately the pain becomes so severe as to prevent such use of the eyes, and organic injury of the retina is probably quite a rare result of uncomplicated asthenopia.

This form of the disease has been called accommodative asthenopia, as being dependent upon an abnormal condition of the muscle of accommodation. It is comparatively rare in youth, being observed principally after the twenty-fifth year of age.

The causes of the disease are, chiefly: Undue use of the eyes, especially if there is insufficient light; weakness of the ciliary muscle from general debility, and very often, that condition of the eye described in our last lecture, as Hypermetropia. The hypermetropic eye, even in looking at *distant objects*, is forced to bring the ciliary muscle into a state of partial contraction. In looking upon near objects, it often requires the utmost power of accommodation to render the lens sufficiently convex. The eye while thus expending its total power of adjustment, is in the same relative condition as the muscles of the arm, while supporting the greatest possible weight; the eye, like the arm, becomes more speedily fatigued, and requires rest sooner than when but a part of its power is expended.

The second form of asthenopia depends upon a weakness or insufficiency of one or of both the internal recti muscles, and is therefore termed muscular asthenopia. As you well know, the ciliary muscle and the internal recti act consensually; the ciliary muscle, in contracting, accommodates the eye for near objects, and at the same time the internal recti contract to render the visual axis more convergent. It sometimes happens that the internal recti become weakened or insufficient. They possess sufficient force to rotate the eyes normally without difficulty, and even to retain the axis quite convergent for some time. But when it is required to fix the eyes long upon minute and near objects, the energy of one or both of the muscles is found wanting; there is a sense of fatigue, which speedily in continued effort becomes painful; the muscle loses its power of contraction, and no longer holds the axis of the eye upon the object; its antagonist gains the control, and rotates the eye outwards. The result of this is indistinct vision produced by double images. These two features, double images and temporary external strabismus, distinguish muscular from accommodative asthenopia. It should be observed that the double vision is not usually very marked, but is characterized by a peculiar indistinctness of objects, caused by unsteadiness of the internal rectus, slightly rotating the eye alternately inwards and outwards. Hence, in cases of slight insufficiency, the images are

not fully separated, but simply overlap each other to a greater or less extent.

The diagnosis of this form of the disease rests upon the two following means of examination: If the patient is directed to fix the eye upon some minute and near object, simple inspection of the eye affected will often show any divergency which may exist in the axes of the eye. A more delicate means is found in the use of the prism. You are aware that rays of light, on passing through a prism, are bent in the direction of its base. Now, if a prism be held before a normal eye, with the base downwards for instance, the rays of light, on passing through the prism, will be inclined downward, and, consequently, fall upon a portion of the retina lower than the images on the other retina. In this eye, therefore, objects all appear in the upper portion of the field of vision. Hence, you should impress this rule upon your minds: that the images of objects seen through a prism, are formed upon that portion of the retina corresponding to the side of the eye to which the base of the prism is directed. This, however, causes the object to appear in the opposite direction, or in that to which the angle of the prism is placed—or in other words, an object seen through a prism appears above, below, at either side, or in any intermediate direction, according to the direction in which the angle of the prism is held.

Now, if a prism with its base *downwards*, be placed before an eye, in which there is even a very slight insufficiency of the internal rectus, the rays will be bent downwards, while the objects will apparently be thrown, for an instant, directly upwards. Hence, there will be double images, that of the eye with the prism being thrown, for an instant, directly above that of the other eye. This double vision so disturbs the harmony of the action of the muscles of the eyes in their efforts to see single, that almost the slightest preponderance of one muscle readily controls the eye. In this case the external rectus being a little stronger than the internal, at once rotates the eye outward, very much quicker and to a greater extent, than when the prism is not used. Since the prism tends to throw one image directly above that of the other eye, the rotation of the eye

outwards carries this second image to the opposite direction, that is to the left, when the right eye is affected, and to the right when the left one is affected. In this way we see plainly the rotation of the eye outwards. Of the farther use of prisms in diagnosis, and of the mode of measuring the insufficiency of a muscle by the number of degrees in the triangle of a prism, which is required to unite double images, we shall speak in a future lecture.

The etiology of muscular asthenopia is sometimes obscure. It is often dependent upon debilitating diseases, in which there is a want of innervation of the general muscular system. It is worthy of notice, that if the eyes are too severely taxed in this condition, the internal rectus may not recover its energy for a very long period.

Acquired short-sightedness and hypermetropia are often causes of muscular asthenopia. If congenital, they are less liable to produce it, since the constant exercise of the internal recti from infancy gives them such strength, that they are able to hold the visual axes more convergent than in the normal eye. After adult age it seems difficult for the internal recti to develop by exercise more force. Hence, in acquired short-sightedness or hypermetropia, one or both of the internal recti are found too weak to produce the necessary convergency. After short and ineffectual efforts to accomplish this, the weaker soon yields to its antagonist, and the eye rotates outward. Rest, application of either tepid or cold water, and looking at a distance, enables the muscle to recover its energy temporarily.

The third form of this disease, or retinal asthenopia, depends upon an obscure pathological condition of the retina. There is a peculiar sensitiveness or irritability of the nerve which forces the patient to avoid certain colors and unsteady lights, especially artificial. Such patients suffer great pain in endeavoring to look long upon any object either near or distant. They cannot pursue the ordinary occupations of life. This condition usually exists to a greater or less extent, as a result of the other forms of asthenopia, as also independent of them. There is much obscurity in the causes of this affection, although the intimate relation between the retina and optic nerve with

the sympathetic nerve, and with the nerves of sensation and motion, will explain many of the phenomena of the disease.

In regard to the treatment of these diseases, you should remember that it is more satisfactory in the earlier stages than after the affection has been long established. If there appear the slightest symptoms of the disease, great care is necessary in regard to quantity and quality of light, and kind and duration of labor. Patients, during convalescence after severe, debilitating diseases, in which the general muscular system fails in innervation, should use their eyes on near objects as little as possible.

Short-sightedness of marked degree requires suitable concave lenses, even in reading. Hypermetropia requires double convex lenses. In either of these conditions of the eye, if hyperæsthesia of the retina already exists, all use of the eyes, with scarcely an exception, even with lenses, should be avoided.

In cases of insufficiency of the internal rectus, the use of a suitable prism, with the angles directed outwards, will often relieve the indistinctness of vision. Since the rotation of the eye outwards in these cases, carries the central portion of the retina towards the inner angle of the eye, a suitable prism with the base towards the inner angle of the eye, bends the rays of light towards its base; consequently, these rays will form images upon the central portion of the retina. In this way prisms overcome double vision, when the visual axes are not both directed upon the same point.

In extreme cases the division of the tendon of the external rectus restores the equilibrium between this muscle and the internal rectus.

Galvanism will sometimes restore the ciliary and internal recti muscles to their normal tone.

Patients are not unfrequently enabled to read and work upon minute objects comfortably by covering the affected eye.

Cold douches to the closed lids, the external application of aconite, morphine, iodine, chloroform around the eyes, are sometimes found to relieve temporarily the pain. To alleviate the photophobia, plain glasses of London smoke, or cobalt blue color, should be worn, as circumstances require.

During the whole treatment, great care should be directed to the condition of the abdominal organs. The thoughts of patients should be diverted from their disease. They should be employed as much as possible in the open air, in travel, and such occupations as will not demand much exercise either of the ciliary or internal recti muscles.

Patients should be assured that there is no danger of "amaurosis," when the eyes are not abused.

When all the precautions have been observed, as above recommended, there may be benefit in exercising the eyes by reading a short time daily, and thus gradually restoring the muscles to strength, and overcoming the peculiar irritable condition of the retina.

Although a careful study of each case will enable you often to relieve the affection, you should remember that there are patients whose condition seems to defy the most skilful treatment.

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*Case of Hourglass Contraction before Delivery.* By D. L. CRIST, M. D., Bloomington, Ill. (Reported by C. JUD. GILL, M. D.)

Mrs. McG——, aged 45 years, the mother of six children, was taken with labor pains early on the morning of Feb. 15th. Saw her at 9 o'clock in the evening. On examination found the os dilated to the size of a silver dollar, and in good condition. Pains regular and strong. At 10 o'clock the membranes ruptured, and an unusual amount (I should think not less than a gallon) of liquor amnii gushed out. An examination was now made and a breech presentation recognized.

At the next pain another gush of water, not so violent or copious as the former, but yet quite free, took place. The case was now left to nature about an hour, the pains continuing regular and powerful. Another examination was then made and the os found well dilated, but no progress in the labor otherwise. At each succeeding pain the head came down into the true pelvis, but immediately retracted above the superior strait as soon as the pain ceased. Desiring to ascertain, if

possible, the cause of delay, I passed the left hand into the uterus, along the abdomen of the child, until I reached about the point of the ensiform cartilage, where I found the body was firmly grasped by a contraction in the uterine walls. The feet were above and firmly held by the stricture, while the umbilicus was below. With some difficulty I succeeded in passing the finger through the stricture between the child's feet, and attempted to overcome the contraction by continued pressure, but failed. After giving the patient a rest for half an hour, a tape was passed around the thighs of the child, and, not being provided with chloroform, I administered antimony to the extent of producing emesis. Steady traction was then made for about half an hour, when the feet came down suddenly, and very soon with about half the body appeared externally. The progress of the labor here became arrested and remained so nearly an hour. The pains being weak and ineffectual I administered ergot, and as soon as they became strong made vigorous traction and soon succeeded in effecting delivery. The child was dead. The placenta was delivered without difficulty. The patient recovered with no unusual symptoms.

If this were a case of hourglass contraction, what was the probable cause? I can think of none, unless it be the unusual amount and sudden expulsion of the liquor amnii.

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*On the Treatment of Cholera.* By D. B. TRIMBLE, M. D., of Chicago.

As the subject of Cholera is now occupying the medical as well as the public mind, it may not be out of place for those in the profession who have had an opportunity of witnessing its ravages, to give their experience and opinions respecting its treatment. Having seen it to a greater or lesser extent in each of the four epidemics that have prevailed in the United States since 1832, I have been compelled to study it, both in the writings of others and by observation at the bedside. I therefore propose to give a brief relation of the treatment as practised by some prominent authorities, and also my own,

hoping it may be of use to some of the numerous class of young physicians who recently left this city to enter upon the pursuit of our arduous profession.

Its semiology and treatment are what practically concerns the physician, and though it would be very gratitying to understand its etiology, it is not of essential importance. Whether it is contagious or non-contagious, or purely epidemic, is a matter of more interest, but from the conflicting opinions prevailing on the subject, cannot be definitely determined without more critical observation. My own opinion on this subject, is, that if it does not appear amongst us, it will not be owing to quarantine regulations however strict. Still, there can be but little doubt that proper sanitary regulations in cities will greatly abbreviate and lessen its ravages.

Dr. William Aitken, of Edinburgh, in his recent work on the "Science and Practice of Medicine," on the subject of epidemic influence and laws, says: "The second characteristic feature peculiar to some of the miasmatic order of zymotic diseases is, that they sometimes spread rapidly so as to incapacitate and destroy great numbers of people. The disease is then said to be epidemic. No subject has afforded greater scope for speculation, than the origin, cause and progress of epidemics. It is in vain to speculate upon the subject; and in the words of Dr. Wood, of Pennsylvania, 'all we can say with certainty regarding epidemics is, that there must be some distempered condition of the circumstances around us, some secret power that is operating injuriously upon our system, and to this we give the name of epidemic influence or constitution,' which is believed to predispose to the receptivity of the specific disease poison." "The most recent speculation regards the discovery of a peculiar atmospheric condition, ascribed to a principle called *ozone*, of which, as yet, we know nothing definite." In regard to the laws of epidemic influence, he says: "This influence frequently predisposes to disease, apparently independent of any other known cause, as in the case of influenza, or *cholera*." Sometimes the epidemic influence manifests itself by different types, and "may demand different and even opposite modes of treatment." During

epidemics other diseases are apt to assume more or less of the prevailing epidemic features. Thus when cholera prevails, looseness of the bowels often complicate the course of other affections. "The first effects of the epidemic are usually the most violent and marked." "The epidemic influence sometimes disappears entirely after a short prevalence; sometimes continuing with irregular intervals for several years, as witness influenza and cholera." The cholera first appeared in the Eastern States in 1832; reappeared in 1834; then disappeared as an epidemic until 1849; returned again in 1854, and has not appeared since, except sporadically. In the above mentioned circumstances relative to the laws of epidemics, all observing practitioners must coincide; and also that "the lower animals are also subject to epidemic influences; and seasons of unusual fatality among them have coincided with those in which the human family have suffered." Witness the "cattle plague" now prevailing in Europe. A chapter in his work "on the management of epidemics," is well worthy of perusal by not physicians only, but by all who have control of municipal affairs, but it is too lengthy for quotation. The recommendations may be summed up in enforcing cleanliness, temperance, ventilation, the use of pure water, disinfectants and equanimity of mind. In regard to cholera, Dr. Aitken thinks it both epidemic and contagious. Dr. Flint, in his new work on the "Practice of Medicine," contends against its contagious nature. (Page 425.) Dr. Wood says: "The essential and specific cause of this" (Asiatic) "form of cholera, is undoubtedly an epidemic influence." "The nature of the *specific* cause is unknown." "The hypothesis that cholera is propagated by contagion has not been without numerous advocates." This hypothesis he endeavors to confute. His enumeration of the predisposing and exciting causes coincide so thoroughly with my own observation that I am induced to quote them. In relation to the first class, he remarks: "The *predisposing causes* are very numerous. Whatever is calculated to reduce the vital energies, or to reduce the vital actions below the standard of health, may be ranked among these causes. Not only are debilitated individuals in greater danger when laboring

under this disease; they are also much more liable to its attack. Previous disease, old age, intemperance, vicious indulgences of all kinds calculated to impair the health, deficient alimentation, an exclusive vegetable diet, confined air, especially in low and damp places, the effluvia of crowded residences, continued grief, *fear*, anxiety and other depressing emotions, all predispose to cholera." "Nor are the *exciting causes* less numerous." "Whatever makes a sudden and powerful impression on the system or irritates the stomach;" "exposure to cold while our body is warm;" "indigestible food;" immoderate eating; "unwholesome drinks, as impure water or impure liquors of any kind;" "very cold drinks or ices, taken too freely;" "purgatives, especially drastic," etc. In the last epidemic that visited this country, I remember attending a portion of a family of nine persons, (part was attended by a homœpathist) five of whom in the course of a week were taken with cholera; three died after a few hours sickness,—one after four days, and one, a little girl of eight years of age, recovered. The last mentioned (who was my patient) was taken from the house before she was attacked. They were temperate people, and lived moderately well, though the house was small for the size of the family, and the yard very small, containing a well of water with a pump, and also a privy. Upon examination of the premises by the mayor, it was found that the liquids from the privy had percolated through the earth, and mixed with the water in the well. This terrible impurity, the slight ventilation of the building, the dampness of the situation, (being near the Delaware River,) and the epidemic influence that had just descended on that locality, were probably the causes of the great malignancy of the disease.

In support of my belief, that quarantine regulations are of little or no avail in preventing the presence of the cholera, I will quote the opinion of the Epidemiological Society of Great Britain in regard to it, and which may be found in the *Medical News and Library*, for November, 1865. It says: "With respect to any endeavor to exclude epidemic cholera by the system of quarantine, no reliance whatever can safely be placed upon it to keep off or prevent the pestilence. 'Sanitary pre-

cautions *within* a *place* are far more important than sanitary orders without.' "

Cholera is sometimes preceded for several days or hours, (as the case may be,) by a diarrhœa, but often comes on suddenly, with vomiting and purging; the former, and, after a few dejections, the latter, being composed of a clear liquid with white flakes floating in it, or milky appearance. There is sometimes nausea, though this is not an invariable accompaniment of the vomiting. Vertigo, tremors, great muscular debility and severe pains in the bowels succeed. There is great thirst and heat in the stomach. The urinary secretion is partially or entirely suppressed. The circulation is greatly depressed in the majority of cases, producing faintness, a feeble and rapid pulse, which often becomes imperceptible hours before life is extinct. There is depression also in the function of respiration, producing more or less dyspnœa, with a cool breath. The muscles are more or less affected with cramps, though there are cases in which this symptom does not occur. The surface of the body is cool and damp; sometimes there is profuse perspiration. The skin often assumes a cyanized or blue appearance; the features are contracted, and the extremities present a shrivelled appearance. The eyes are sunken and have a filmy appearance; the hearing is often obtuse; the voice very weak, or entirely suppressed; and the mind generally tranquil from its inertness. Sometimes reaction takes place, and there is considerable fever.

In regard to the treatment there is considerable difference of opinion among practitioners, though among standard authorities there is not so much. In regard to the prophylactic treatment, Dr. Flint says: "Attend to the diarrhœa; if treated early it can generally be checked; and if checked, the cholera does not generally appear." He uses anodynes, astringents, "rest and recumbancy." He recommends laudanum and spts. camphor; or tinc. opii camph. with tinc. kino, catechu, or krameria; or sulph. morph., with ac. tannic, or acet. plumb., bismuth and capsicum. I have used with very good success, in this stage of the disease, a combination of opium, camphor, capsicum and tannic acid, digested in the compound spirits of sulphuric ether.

In the first and second stages of the disease, or those preceding collapse, the indications for treatment are, according to Dr. Wood, "to arrest the evacuations from the stomach and bowels; to relieve irritation of the gastro-intestinal mucous membrane; to restore the suspended secretions, especially that of the liver; to equalize the circulation; to relieve the nervous disturbance; and to support, when necessary, the general strength. Of these, the most important is to arrest the alvine evacuations, for it is by their continuance and increase that the fatal condition of collapse is generally induced." To meet these indications it has been my practice to prescribe opium or some of its preparations, in connection with calomel or pil. hydrarg. (generally the former) in small and frequently repeated doses, and combined, if the case was urgent, with some astringent; as acet. plumb., kino, or krameria. In regard to the use of opiates, Wood, Eberle, Aitken, Flint, and a large majority of authors and practitioners, unite in approving. The three first mentioned authors, with many others, concur in the use of mercury. Dr. Flint does not recommend it; but I have seen too many cases, which, after the administration of calomel, and the return of the secretion of bile, and its appearance in the evacuations, have been gradually relieved from the diarrhœa and vomiting; from the cramps and pain; the temperature of the skin augmenting; the pulse improving, the strength increasing, and all the symptoms alleviated; not to attribute much of this improvement to the mercurial influence, and to believe, that without it, those cases would have been fatal.

In some cases, and those are generally the most fatal, there is little or no vomiting or diarrhœa, but the patients rapidly sink into the stage of collapse.

All these authorities also recommend astringents; and plumb. acet., kino, krameria and catechu are the especial astringents recommended. Tannic acid is with me also a favorite astringent in this disease. The acetate of lead acts as a sedative to the bowels, as well as an astringent; the others by their astringency only. To allay the intense thirst, small pieces of ice may be frequently swallowed, but large draughts of water only aggravate the vomiting. The ice will often alleviate the

nausea, and for this purpose also, carbonic acid water, lime water, aromatic spirits of ammonia, or other aromatics, may be given; and a sinapism of full strength applied to the epigastrium. An enema composed of thin clear starch or linseed tea, with laudanum; with an astringent, if the case is very urgent, in addition, may be administered, with a view to checking the diarrhœa and alleviating the tormina. This may be repeated. To relieve the cramps, dry frictions may be applied, but stimulating frictions are objectionable, on account of the irritation of the skin soon becoming too great to bear them. If the feet and legs alone are cramped and cold, a warm stimulating foot-bath may be used. During the last epidemic, the thought occurred to me that anæsthetics might be applicable to this symptom, and I determined to use chloroform in the first favorable case for its administration that should present. About the last case I had that year, was, from the great severity of the cramps, also the most suitable for the experiment. The patient, who was a strong muscular man, about thirty-five years old, sent for me in the morning, but being from home, I did not see him until about 11 o'clock A. M. I found him vomiting and purging the peculiar choleraic fluid; with the other symptoms of the second stage, and cramped apparently in every muscle of his frame. The muscles of his limbs, abdomen, thorax and face were contracted, giving him a most frightful aspect, and requiring three or four strong men to keep him on the bed, during his paroxysms. Though a man of firmness, his screams could be heard in neighboring houses. He resided three miles from the city, and I sent a messenger for four ounces of chloroform. His skin was cool, and pulse scarcely perceptible. I gave him laudanum and brandy, which he at once ejected, and I awaited the arrival of the chloroform, which was handed me while he was in a severe paroxysm of the cramps. I immediately poured some on a handkerchief and held it near his nose, moving it from side to side of the bed, as he threw himself about, in his agony. After several minutes he suddenly threw himself on his back, perfectly motionless, and with staring and fixed gaze, seemed scarcely to breathe. But presently the lids relaxed, the features became less rigid,

and he fell into a quiet slumber. I sat by him for some minutes while he thus slept, when he awoke cramped, and exclaiming "more! more chloroform." I administered it again with a more speedy result, and with longer effect, and was then obliged to leave him; giving strict directions for the use of the chloroform, and warning his attendants of its power. I returned at 4 o'clock P. M., and found that they had used it *all;* but he was greatly relieved of the cramps, and I now commenced the use of calomel and opium, which he partly retained. The vomiting and purging were of less frequent occurrence, the cramp returned only at long intervals, and then more slightly; and in about thirty-six hours from the first administering of the calomel, there was the appearance of bile in the stools, from which time his symptoms were greatly alleviated, and he rapidly convalesced; and in one week from the commencement of the attack, he was down stairs. I believed then, and still believe, that the chloroform saved his life, for though I do not suppose it would have cured him, yet it alleviated the intense suffering, which of itself would have probably produced fatal effects, and gave an opportunity to administer other remedies that would not have been retained but for its effect. In the *Medical and Surgical Reporter*, for October 5th, 1861, are several testimonials to the good effects of anæsthetics in cholera. Dr. Rowell, of San Francisco, gave it, "with a view to relieve pain only; morphine and opium in enormous doses, having proved unavailing, being rejected by the stomach as soon as swallowed." In his case, like my own, the vomiting and cramps ceased, and "the appropriate remedies were tolerated by the stomach, until their therapeutic action was fully established, and the disease controlled." Dr. Thos. D. Mitchell, in his work on "Materia Medica and Therapeutics," relates the case of a physician who was seized with cholera, and who, having no other remedy at hand, inhaled it, went to sleep, and awoke in "a safe condition." Steady and firm extension of the muscles is another means of relieving cramps.

In extreme prostration the diffusable stimulants may be used, but with caution. The intemperate require them more than the temperate. The ethereal preparations are perhaps the best;

but tinc. camphor, arom. spts. ammon., brandy or port wine, may be used with this view.

Leeching is recommended in some cases, both by Prof. Wood and Dr. Aitken. The former advises it in the earlier stages to the epigastrium, where there is tenderness or burning pain in the stomach; the latter, to the temples, when there is headache. In regard to bleeding by venesection, the general impression is against it, but some eminent physicians have strongly advocated it. I have an indelible recollection of the first case that I ever attended, (in 1832,) and that not as a physician, (for I had not then entered on my medical studies,) but as an interested nurse, for it was in the case of my father. He was a man of delicate constitution, and was just convalescing from a slight attack of fever, when he was attacked with cholera, the cramps attacking first the muscles of the throat, and gradually extending to the limbs, but not so severely cramped as many. Our family physician, who had attended him up to this time, was himself taken sick, and sent a younger gentleman. My father was rapidly sinking, when the doctor alarmed my mother by proposing to bleed him. This she objected to, knowing his peculiar susceptibility to the effects of bleeding, usually the loss of three or four ounces of blood causing him to faint. He requested a consultation, when an old medical friend of my father was called in, but he too objected to bleeding. After considerable argument, however, he was induced to give his assent. By this time the surface was cool and shrivelled, and the pulse at the wrist almost imperceptible. He was raised up in bed, and with intense anxiety I watched the process. At first the blood would scarcely flow, but gradually it increased, and as they sat on either side of him with their fingers on his wrists, I could see the doctors exchange gratified glances with each other, and after taking, what I then thought, an enormous quantity, (about 12 or 14 oz.,) my father was laid down greatly relieved, and his pulse restored to a moderate volume. He was afterwards cupped over the abdomen, and eventually recovered. This gentleman afterwards informed me, that the two first cases he treated, (a father and son,) both died. He gave them stimulants, opiates, etc. In subsequent cases he almost invariably

bled, and his success was very great. In my own practice it has been seldom that I have resorted to it, and then in cases that did not enable me to decide for or against its propriety. Dr. Wood says: "In those rare cases in which the pulse is full and strong, especially if connected with convulsive symptoms, blood should be taken from the arm." But in my father's case the pulse was greatly depressed, and this was his physician's reason for bleeding; I suppose on the theory of internal congestion. Dr. George Johnson, Prof. of Medicine in King's College, in "Notes on the Pathology and Treatment of Cholera," takes the position that the collapse of cholera is not due to a drain of liquid from the blood, and strongly advocates free venesection as the remedy chiefly to be relied on. His arguments are very ingenious, and well worthy of perusal, but too lengthy for quotation. In regard to the effect of venesection on the symptoms of collapse, he says: "But what has been the effect of venesection in not one or two, but in a large number of cases of cholera, and in the hands of many practitioners?" "It is in the writings of the Indian practitioners, that the largest amount of evidence is to be obtained as to the influence of blood-letting in cholera. Scott makes the following remarks on this subject: 'The abstraction of blood, unless as an anti-spasmodic, is a remedy so little indicated by the usual symptoms of cholera, that its employment in the cure of this fatal disease has afforded a signal triumph to the medical art.' It requires no common effort of reasoning to arrive at the conclusion that, when the powers of life appear to be depressed to the lowest degree, the pulsation of the heart all but extinct, the natural heat of the body gone, and the functions of the system suspended and incapable of being revived by the strongest stimulants, the abstraction of blood might yet prove a remedy against a train of symptoms so desperate." "Few remedies, on fair trial, have been more generally or unequivocally advocated than free blood-letting; and the most that has been urged against it is, that it is not always successful." He then quotes reports from medical officers, furnishing very striking testimony as to the benefit of bleeding in cases of extreme collapse. Annesley says: "In place of syncope being

produced by bleeding, in the cases which I have treated, the pulse has invariably improved, and the feelings of faintness and debility disappeared." Bell makes the following statement: "The effect of blood-letting would indeed sometimes appear almost miraculous. A patient will be brought in on a cot, unable to move a limb, and, but that he can speak and breathe, having the character both to touch and sight, of a corpse; yet will he, by free venesection alone, be rendered in the course of half an hour, able to walk home with his friends." Rogers gives the following description of the effects of venesection by a medical man, who was himself the patient: "There was a sensation which I am at a loss to describe, as if my heart was ceasing to beat, and a dread of suffocation; this sensation was instantly relieved by bleeding, and I recovered immediately." After giving still farther testimony to this treatment, he says: "I maintain that the numerous well authenticated instances of great, and immediate, and permanent relief by means of venesection in the collapse of cholera, are irreconcilable with the hypothesis in question, viz: the loss of the liquid constituents of the blood." Dr Johnson's article is reported in the *Medical News and Library*, for January, February and March, 1866.

*Emetics* are never proper except in the forming stages, when, if the stomach has been filled with undigested food, a gentle emetic,—of infusion of mustard, or of ipecacuanha, may be used. In regard to *purgatives*, there is a difference of opinion respecting their use. Dr. Wood limits their employment to the mildest laxatives, if costiveness should be produced by the means used for checking the disease. Dr. Johnson, in the article above alluded to, advocates giving both cathartics and emetics, contending that the fatality is less than where opiates and brandy are employed. He chiefly uses castor oil as a purgative; Dr. Wood, rhubarb. In the stage of collapse, active stimulation, judging by the symptoms alone, would seem to be called for, but experience has shown that it cannot be used largely. In the opinion of Dr. Johnson it is positively injurious, but Drs. Flint and Wood advise it moderately; and the two latter physicians, as well as Dr. Aitken, recommend in this stage as external applications, warm blankets, hot bottles, sinap-

isms, astringent applications to check the profuse perspiration, etc. Bicarbonate of soda, weak animal broth with salt, injections of salt water and laudanum; to allay vomiting, chloroform, ether, creosote, etc.; to promote reaction, the essential oils in alcohol, diffusable stimuli, etc.

When *reaction* is established, "the treatment must be made to conform to the variable morbid conditions presented, and must be guided by the general principles applicable to other affections." (Wood.) Much care in the diet should be observed until the patient recovers fully his wonted health. As a prophylactic, Dr. Salisbury, of Illinois, recommends cider, and other diuretics. ("*Journal*," for November, 1865.)

A peculiar and, as claimed, a remarkably successful mode of treatment has been practised by Dr. John Chapman, of Southampton, England. It consists chiefly in the application to the spine of bags of ice. Occasionally he alternates with *warm* water. He relates seven cases, five of which were successful. No doubt this measure would have a powerful influence, whether for good or for evil my experience will not enable me to say. During the epidemic of 1849, I was called to attend on an estimable young physician, residing about three miles from my home, but being absent on professional duty did not see him until nearly six hours after the first symptoms. He was then collapsed and speechless, though not insensible, and had directed his own treatment; a portion of which was the application to his abdomen of cloths saturated with ice water. He died about two hours after I first visited him.

## HOSPITAL REPORTS.

*Cook County Hospital Surgical Clinic.*—By Dr. Geo. K. Ameri'an, Attending Surgeon.

(Reported for the Chicago Medical Journal.)

Gentlemen,—To-day we meet you for the first time under the new administration of this Hospital, to inaugurate, under many temporary inconveniences incident to a new enterprise of this character, our clinical course of study. The reorganiza-

tion of this Hospital, under its present management, makes it a permanent institution, and we now have every means afforded for clinical instruction, and hope to be able to present to you, from this time forth, the cases at the bedside, in such a way as to make you familiar with disease and accident of every kind.

We are glad to see so many of you on this occasion, and we welcome you to the wards of this institution. To-day we commence our regular course of clinics, to be continued throughout the entire year; and as the executive officers of the Hospital are willing to afford every facility to the Medical Board for clinical instruction, we trust we shall succeed in our endeavor to make the course interesting and instructive to each one of you.

With these brief remarks, let us turn our attention to the patient now before us.

He states that he is 53 years old, and has always enjoyed good health. That he is by occupation a sailor, and that two years ago he fell from the rigging of a ship and struck on the left side, receiving a severe contusion over the anterior tibial region of that side. The injury, however, was not so serious as to prevent him from pursuing his ordinary avocation, and supposing it only a temporary inconvenience, he paid very little attention to it, using only simple domestic remedies as suggested by his friends.

About six months after the occurrence of this injury, a swelling made its appearance over the anterior middle third of the left tibia, and continued to increase for several weeks, and finally, opened and discharged a large quantity of unhealthy pus.

From that time to the present, a year and a half, the limb has been a constant source of trouble; and for the last six months a large ulcer has existed over the original seat of the injury, occupying the lower two-thirds and nearly surrounding the entire limb.

At present the leg is flexed upon the thigh, and cannot be extended beyond a right angle. It is swollen, painful at times, and entirely useless. The ulcer has an unhealthy, livid appear-

ance. The surrounding soft parts are œdematous. His general health is good.

The length of time this disease has existed—its traumatic origin and gradual progress—render it very probable that the original difficulty commenced in the bone and periosteum, and that we now have osteitis, continuing for two years, and finally giving rise to inflammation and ulceration of the soft parts.

With this view of the case, what can we do toward curing the patient? What medicines control or exercise any influence over this disease? What local means will aid in healing this large ulcer, and restoring the proper functions of the limb?

So far as I know, there are no means, constitutional or local, which promise any permanent benefit in a case of this kind. Osteitis, at this stage, is entirely beyond the reach of remedial means. The gradual hypertrophy of the osseous tissue, which always ensues from this long continued over-action of the part, and the interstitial molecular changes which result therefrom, cannot be influenced, in any degree, by the administration of medicine. After the bone has become enlarged, the periosteum thickened, the soft parts extensively involved, and the limb contracted and useless, the only course to be pursued is the removal of the diseased part; and in this case, amputation of the leg is the only thing that will afford any reasonable expectation of a cure.

The patient is anxious to have the part removed, and after consulting with the surgical staff of the Hospital, we have decided upon the operation, and will now proceed to remove the limb about four inches below the knee-joint.

The first thing after deciding to perform an operation, is to select and arrange the instruments necessary for its proper performance. These should be placed on a small bench or stool, and arranged in just the order they will be required, so that without any trouble or inconvenience, you can put your hand on them at any time.

The next thing, is, to arrange the bed or table for the patient to lie on during the operation. This should be placed in a

light, airy apartment, should be about two and a half feet high, and stand firm. It should be covered with two or three folds of clothing, so as not to be too hard, and, if convenient, this covered with oil cloth, to prevent soiling.

These arrangements all complete, let the patient remove his outside clothing, and after fixing his position fairly on the bed, administer the anæsthetic. As soon as the patient is fully under the influence of the ether, you carefully apply the tourniquet, which is always safer and better than trusting to the fingers of an assistant, draw the patient down to the edge of the bed, and directing your assistant to hold the limb, you proceed, slowly and carefully, to its removal.

(In this case we shall adopt the old antero-posterior flap method, and as that operation is familiar to you all, we will not describe the steps of the operation.)

After the limb is removed, proceed to apply the necessary dressing. These should always be very simple and light. First, carefully secure every bleeding vessel, then stitch the flaps together, accurately adjusting their edges with as many interrupted sutures as are necessary for that purpose, and placing over this three or four thicknesses of muslin, wet in cold water, as a compress, and over the whole a roller bandage completes the dressing.

The patient will now be removed to the ward, a full anodyne administered, and at our next clinic we will see the progress and result of the case.

January 27. We will first examine the patient whose leg was amputated a week ago. You perceive he appears quite comfortable. The pulse is only 80, appetite good, bowels regular, and he rests well at night. Since the operation there has been no constitutional disturbance, and the only treatment consisted of an occasional anodyne at night. The wound united by adhesion throughout one-half of its extent, and the remainder is closing by granulation. It looks well, and is, for the most part, free from pain. The only dressing is a light compress and roller to steady the parts.

Here we have the specimen after its removal, and it shows, in a remarkable manner, the changes produced in the osseous tissue by long-continued inflammation. The soft parts and periosteum have been removed, and you perceive, in the first place, the increase of size, the tibia being nearly a third larger than normal. With this hypertrophy there is also an increase of weight. This tibia weighs at least twice as much as a healthy bone should weigh. And again, the texture is changed; instead of a layer of compact tissue surrounding the cancellous texture and medullary canal, the whole thickness of this bone is composed of a dense hard tissue almost like ivory: *eburnated*, as it is called. And lastly, the surface is everywhere rough and uneven, with numerous processes and tuberosities projecting from it and extending across the interosseous space, which become firmly united to the fibula. These are sometimes called osteophytes.

These changes of size, weight, texture and form are all the result of long continued inflammatory action of the part; and from their character and the nature of the tissue involved, we see how inefficient all medication would prove, and how necessary it becomes to remove the whole of the diseased part.

(This patient was discharged, cured, February 26th, with a good stump.)

The next patient to whom we will direct our attention, has an affection of an entirely different character, and one of very great interest and importance.

He says he is 65 years old, and has always enjoyed good health. That about two years ago a small hard swelling made its appearance on the middle of the lower lip, which at first attracted very little attention, and seemed of trivial importance.

Soon after its appearance, however, it ulcerated and assumed a much more serious form, the ulceration spreading rapidly and involving the surrounding parts. This unexpected development and progress of the disease induced him to consult several surgeons in reference to it, who advised various applications which were assiduously used, but without any apparent benefit. A week ago he was admitted into the Hospital and is very anxious to have something done for relief.

His general health is excellent, and the only difficulty is located in the lower lip, which, as you see, is the seat of this large, ragged, unhealthy-looking ulcer. The whole lip is involved in this disease, and a large portion of it has been entirely destroyed.

The base of this ulcer is indurated and covered with large, flabby, greyish granulations, surrounded by a jagged, irregular edge. It discharges a fœtid ichorous matter mixed with saliva. The surrounding soft parts and neighboring lymphatics are healthy.

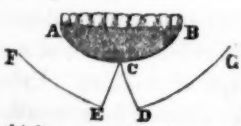
The first question that arises in this case relates to the character of this ulceration, which the patient states has existed for nearly two years. Very evidently this is not a common simple sore, and will not yield to ordinary treatment. He has already made diligent use of various local applications, without receiving a particle of benefit, and if we expect to succeed any better, we must first thoroughly understand the nature of the disease.

So far as we can judge from the history of the case, this affection originated without any assignable cause, and this fact, connected with its first appearing as a small tubercle situated on the lower lip, are suspicious circumstances of a malignant nature. Soon after its appearance this swelling ulcerated, and from that day to the present it has rapidly increased in size. These additional facts, the rapid progress of the disease, its tendency to involve surrounding parts, its persistency under treatment, together with those already mentioned, its originating spontaneously as a small tubercle on the lower lip, and withal its present appearance, leave no doubt as to its being the form of malignant disease commonly designated Epithelial Cancer.

Taking this view of the case, then, the next question is, what can we do in the way of treatment? Local applications have already been thoroughly tested and found useless, and constitutional means promise no better success. The experience of the past shows that when the general health is good, the different functions of the body active, with no cachexial symptoms present, internal medication exercises no influence over the progress of any form of cancer, and in every case the only question in reference to the treatment, is regarding the propriety of operating for its removal. In this case an operation is the only resource that promises any benefit whatever, and we must either abandon the patient to his fate, or excise every particle of this diseased mass. The great objection against operating in cancerous affections, is their liability to return and pursue even a more rapid course than if left to themselves, and hence the question of excision becomes a very serious one, and should in every instance be carefully considered, and all the surrounding circumstances taken into account before deciding what course to adopt. In this case the patient is anxious to have the part removed, and after consulting with the surgical staff of the Hospital, it has been decided to excise the entire lower lip, and construct from the surrounding healthy parts as good a substitute as possible. We will now administer the anæsthetic and proceed to perform the operation.

The methods adopted by different surgeons for the formation of a new lip are various, and many of them quite complicated and difficult to perform; but the one that we shall adopt is the common operation first used by Dr. Mutter, I believe, which is easy of execution, makes a good looking lip, and is generally successful.

The annexed cut shows the different incisions and steps of the operation.




The first incision, A B, extends from one angle of the mouth to the other, circumscribing the whole of the diseased part, and should go through the entire thickness of the lip in the healthy surrounding tissue, including every particle of the diseased mass. You next proceed to

form a new lip from the surrounding healthy parts by making two other incisions, the first, C D, extending from the centre of the chin downwards and a little outward, to near the base of the lower jaw; and the second, D G, extending from the lower extremity outwards and a little upward, to near the angle of the jaw. The same incisions are made on both sides. These incisions form two quadrilateral flaps, and remaining between these you perceive a triangular portion of healthy tissue. After detaching the flaps from the jaw, you elevate them so that their lower angles, D G, come nearly to a level with the point of this triangular healthy tissue at C, and secure them in that position by a twisted suture, passing through their lower border and through this healthy triangular part. Other sutures are now applied at various points, adapting the parts as nicely as possible with a few strips of adhesive plaster, a compress and light roller.

The patient will now be removed to the ward, an anodyne administered, and at our next clinic we will see the result.

Feb. 13. Patient discharged, cured, with a good lip and very little deformity.

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## PROCEEDINGS OF MEDICAL SOCIETIES.

### CHICAGO MEDICAL SOCIETY—MARCH, 1866.

Dr. S. Wickersham reported a case of angular curvature of the spine in an infant which had been under his observation from birth, and which had apparently enjoyed perfect health during its first year. For the next six months, although taking an abundance of food, it ceased to grow, without, however, losing flesh. There was no diarrhœa, no vomiting, no cough, no pain, in fact no other evidence of sickness, except a degree of weakness in its lower extremities. The child did not at any time stand alone or make any attempt at walking. Upon an examination of its spine when it was about fifteen months old, no evidence of disease was found. At about the eighteenth month its mother thought she observed a slight swelling over

its spine, and again requested Dr. W. to see it. There was then marked spinal disease, involving the second, third and fourth dorsal vertebræ, although the angular curvature was not extensive. The mother was *positive* that it had not fallen or received any injury. Believing that the disease was constitutional in its origin, and that scrofulosis and tuberculosis were identical, he directed the administration of such medicines as have received the sanction of many of the best authorities in the profession, cod liver oil being the chief one.

At about the twenty-first month it commenced to cough, and lose flesh; the angular curvature had become more prominent; there was dullness in the infra-clavicular region of the left side. Some weeks later a cavity was formed in the upper portion of the left lung, and undoubted evidence that the right lung was participating in the disease. At about the twenty-sixth month the hands and feet became dropsical. The child was greatly emaciated, but had at no time any diarrhœa, and took eagerly an abundance of nutritious food. It went from bad to worse, and died, aged twenty-seven months.

This case was brought to the attention of the members of the society, because a few weeks ago Prof. Bauer, of New York, delivered before the society a lecture, upon coxalgia and spinal disease, claiming in a very decided manner that they were generally the result of traumatic causes, and that the profession had heretofore entertained erroneous views in regard to their pathology, and also deprecating the use of internal remedies. That such diseases do sometimes result from blows, falls, etc., he was prepared to admit, but that the great majority of them result from constitutional causes, he should continue to think until more evidence was produced to the contrary.

No autopsy on this case was permitted; but that the child died from consumption is certain, or else rational and physical signs furnish us no knowledge of changes in the lung tissue.

Dr. McAllister related briefly the history of a patient, 17 years of age, now under his care in advanced stages of tuberculosis, who had recently suffered from coxalgia, as shown by the pain, contraction of the muscles and position of the limb, and by the crepitation readily perceived, when the patient was

placed under the influence of chloroform. He considered the disease of the hip-joint as resulting wholly from tuberculosis.

In a discussion which followed the reports, Drs. Marguerat and Holmes maintained that the cases afforded but negative evidence. There was reason to believe that the infant might have received an injury, and that the resulting abscesses might have invaded the tissue of the lungs, producing all the symptoms described.

The case of Dr. McAllister might be an exceptional one.

Weak, ill-developed children were liable to injuries of the hip and vertebræ, which might possibly result in inflammation, even more readily than in healthy subjects. Strong, robust children were perhaps more liable to injury, on account of their activity in climbing and jumping. Such children, on receiving an injury, continue to exercise, thus inducing irritation of the affected parts. The subsequent pain, want of sleep, exercise and loss of appetite, with the irritative fever and suppuration, all long continued, were sufficient to produce the peculiar cachexia of these cases.

The fact that suitable local treatment, counter-extension and support of the parts, evacuation of the purulent matter, with care as regards ventilation and diet, result so very often not only in recovery from the local disease, but also in perfect restoration to health, would seem to prove that there was much less frequently than formerly supposed, a peculiar scrofulous or tuberculous diathesis in this class of cases.

Recent investigations with the microscope seemed to indicate that in all bones collected in museums, and supposed to contain tuberculous deposit, the abnormal product was simply inspissated pus; in fact, that there was no such substance as "tuberculous deposit," distinguishable with the microscope, from modified pus.

Dr. Tucker related the history of the following remarkable case:

He was called to a patient, who had been delivered some days before his visit with the aid of forceps. He found, on examination, an immense abscess at one side of the anus, extending upwards by the side of the rectum, the external tissues

appearing ready to slough. The abscess, on being opened, discharged very large quantities of offensive pus. After the gangrenous portions had been thrown off, an extensive sinus was discovered by the side of the rectum, sufficiently large to almost admit the hand. This sinus terminated three or four inches above the anus, in a small opening into the rectum. There was also quite a large recto-vaginal fistula, near the upper end of the abscess. After dividing the septum between the rectum and abscess, as in ordinary fistula in ano, cicatrization slowly progressed and in two months was complete. The patient was then able to retain the fæces prefectly. It is a fact worthy of notice that the recto-vaginal fistula healed spontaneously.

Dr. Lyman related the case of a woman who was placed under his care in the Bellevue Hospital, New York. She had been delivered with forceps, by parties outside of the Hospital, and had suffered a rupture of the perineum and of the recto-vaginal septum, extending more than two-thirds of the distance between the anus and the fornix vaginæ. When brought into the Hospital, her condition was such as to preclude immediate operation, so she was simply placed in bed, with good diet, tonics and strict attention to cleanliness. At the end of a fortnight the rent in the recto-vaginal septum had closed as far down as the sphincter muscle. She was afterwards operated upon by paring the margins of the wound, and bringing them together with silver wire. After two such operations she was able to retain the fæces, and they passed through the anus when leaving the bowel. Feeling well and comfortable, she concluded to postpone operation upon the perineum, and left the Hospital.

In answer to a question, Dr. Fisher stated that he had observed two cases in which recto-vaginal fistula closed spontaneously.

Dr. Fisher presented a most interesting specimen of the uterus, ovaries and fallopian tubes, taken from a woman who had died from the effects of tubal pregnancy. The patient, in her fifth pregnancy, was suddenly and without warning seized with most violent pains in the abdomen, with great prostration,

and intense desire to evacuate the contents of the bladder and rectum. Although opiates and stimulants were freely administered, the patient rapidly sank and died in eight and a half hours.

The autopsy revealed the rupture of a small artery, from which had been discharged into the peritoneal cavity eight pints of blood, nearly one-half of which was coagulated. In the left tube was found a fœtus about one inch and a half in length. The uterus was of its ordinary unimpregnated size, and was not lined with the membranes of pregnancy.

Dr. Marguerat exhibited a brain taken from a girl at the orphan asylum, eight years of age, who had died quite suddenly with the following symptoms:

The patient was of a scrofulous diathesis and subject to eruptions. Early on the morning of Tuesday, while in her usual health, she was suddenly attacked with vomiting, which continued during the day; the fluids from the stomach, as the attendant stated, being mixed with blood. No physician was called during the day. At his visit in the evening, Dr. M. found the pupil dilated, pulse 100, bowels very constipated. The patient was very restless, constantly tearing the tongue, gums and lips with the fingers to such an extent as to cause them to bleed freely.

On the next morning the pulse was 60, pupils contracted. Although there had been during the night slight spasms of the muscles of the neck, they had entirely subsided; the breathing was labored; the patient died comatose twenty-two hours after the commencement of the attack.

The brain simply showed considerable venous congestion, with slightly increased quantity of the fluids in the ventricles.

Dr. Adolphus stated that he had treated a case of asthenic puerperal fever, with ten grains of sulphate of lime every three hours, with no good effect.

Dr. Wanzer read a paper on the geology, climate and diseases of Santa Clara Valley, California, where he had recently passed several months.

Dr. Holmes exhibited a quite rare specimen of tumor of the iris, with the following history:

The patient from whom it was taken, a German woman, 26 years of age, observed eighteen months since a minute white spot in the temporal side of the left iris, half way between its pupillary edge and periphery. There was no pain, congestion, loss of sight, nor even any inconvenience whatever for several months. About ten months ago the tumor had gradually encroached upon the pupil, although there was no diminution of vision and no vascularity. The iris, except at the seat of disease, had been normal in color. At this period the tumor commenced to be subject to attacks of hemorrhage. The anterior chamber during these attacks would be quite suddenly and completely filled with blood, which entirely obstructed vision. The coagulum would be absorbed in a few days, when vision became again perfect. During every attack of hemorrhage there was considerable pain and congestion of the conjunctiva. This hemorrhage occurred without any known cause, either as connected with exercise, position, straining at stool, or with the monthly periods.

On applying for advice about a fortnight since, she was recovering from an attack of hemorrhage, which had caused much greater pain than ever before, still continuing very severe in and about the eye. The tumor had in three weeks doubled its size.

The conjunctiva and subjunctival membrane were much congested, especially near the cornea and at the temporal side of the globe; the tumor covered the pupil and filled the externa two-thirds of the anterior chamber, but did not quite extend to its upper and lower limits. The remaining portion of the anterior chamber was filled with coagulum, which was, however, evidently being absorbed. The tumor pressed against the cornea and appeared to extend posteriorly, as if involving the ciliary muscle; it was of a pinkish, white lustre, and presented a structure of great delicacy, resembling the malignant growths not unfrequently observed in the fundus of the eye, in children. The cornea was slightly ulcerated or abraded in front of the tumor.

The general appearance of the growth and the hemorrhage, would lead one to suspect it was of malignant nature, although

no evidence of family predisposition could be discovered. Dr. D. Prince, of Springfield, who happened to be present at the examination, concurred in this suspicion.

The size of the tumor, the indications that it extended to the ciliary muscle, and the ulceration of the cornea, almost wholly precluded the feasibility of extracting it with its attachments, even if non-malignancy could be established. It was thought best therefore to extirpate the globe by enucleation.

The specimen here presented consists of the globe divided horizontally through its centre. The internal structure of the tumor with its encroachment upon the ciliary muscle are readily seen. Dr. W. C. Hunt, after a careful microscopic examination of the tumor, describes its structure as follows:

Irregularly shaped cells, of which the caudate form predominates, filled with nuclei and nucleoli.

Large quantities of nuclei floating loose.

In some of the cells, and also with the free nuclei, are scattered pigment cells, ("Melanoid.")

Dr. McWilliams, upon favorable report of the committee, was duly elected a member of the society.

## CHOLERA.

Prof. N. S. Davis resumed the discussion of cholera. He stated very clearly the effects of caloric upon the vital affinity of the tissues of the body, producing a laxity of tissue and a sluggish performance of the processes of nutrition and secretion which favor the invasion of disease. Added to these predisposing causes, is either the absence or the presence of something in the air, which by its action upon the excito-vascular nerves depresses their vitality, so that they cease to maintain that degree of vascular tonicity which is essential to health. Hence, exudation occurs in the form of perspiration upon the surface of the body, and in the form of a flux upon the mucous surface of the alimentary canal. As the disease advances the blood is drained of its watery portion until it becomes too thick to circulate, and the phenomena of collapse ensue. In explanation of the cases of speedy death where collapse occurs early, perhaps without vomiting and purging, Dr. Davis believed that

the phenomena are referable to the overwhelming effects of a poison more than usually malignant, by which the vital affinity of the tissues is wholly arrested, producing death before the manifestation of the ordinary phenomena of the disease.

From these premises is to be deduced a treatment which shall serve to allay the irritability of the intestinal canal, to improve the tonicity and vitality of its coats and vessels, and to restrain the inordinate discharges from the blood. For this purpose Dr. Davis stated that in the stage of cholerine he was in the habit of prescribing the following mixture:

℞ Tr. opii,
Magnes. sulph.,
Acid sulph. arom., aa. ℥ij.
Aquæ, ℥ij.

M. Dose, a teaspoonful every four hours. He also considered important the administration of mercurials, to correct the hepatic and renal secretions, and tonics to maintain the vitality of the tissues. Quinine should be avoided, because it is a nervous sedative, but strychnia would be found serviceable. Proper attention should be paid to diet and to drink. The practice of drinking between meals was objectionable, as also the use of alcoholic beverages. The free use of the vegetable acids would be found productive of good during the warm weather of summer. In his own experience the Professor had found simple vinegar and water a most agreeable and salutary drink.

Dr. Wickersham expressed his inability to find a theory of cholera that was completely satisfactory.

Dr. Marguerat stated that the observations which he had found recorded could not all be reconciled with the theories which had been presented to the society. It was a matter which demanded further investigation.

Dr. Lyman addressed the society, in support of the theory that cholera is the result of a morbid change produced in the watery portion of the blood, and that the phenomena of the disease are the efforts of nature to exclude this vitiated fluid from the tissues, and to eject it wholly from the system. Consequently, the proper course of treatment is that which, while

upholding the powers of the sufferer, tends to favor rather than to counteract the eliminative process. In accordance with this view the speaker condemned the use of opiates, astringents and stimulants, which can only add to the danger of the patient by impeding natural excretion, by restraining the elimination of the *materies morbi*, and by favoring its circulation among the already enfeebled tissues.

He recommended moderate warmth and quiet, to support the vitality of the system; diaphoretics, emetics and even laxatives in cases where the eliminative efforts seemed to be impeded; mercurials in the early stage, to promote excretion; chloroform to relax spasm; and above all the free use of carbonic acid water, containing a small proportion of salt, to assist in the renewal of a healthy serum.

He also dwelt upon the importance of discriminating between a vital effort which is beneficial, and the mechanical inconvenience or even danger which may result from the effort. While vomiting and purging undoubtedly are a *mechanical* source of danger to a patient, it is important to keep in mind the greater *vital* injury which must result from opposing the removal of the cause which excites such phenomena. If the blood could be speedily and effectually purified through the natural channels, a fatal result would be almost impossible, and the more alarming features of the disease would not appear. But while the ordinary excretory channels are impeded, the effort to arrest the vicarious process which is going on through the only remaining avenues of exit, can be fraught with nothing but danger to the patient.

In conclusion, the speaker presented a table of more than six thousand cases of cholera, treated in the hospitals of London and Paris, from which it appeared that the percentage of mortality increased in exact proportion to the activity of the efforts made to counteract the phenomena of the disease.

Dr. Davis opposed the idea that vomiting and purging could be anything but prejudicial to a cholera patient. He advocated the use of astringents, but admitted that the natural processes of elimination should be encouraged. He did not place much confidence in the evidence of statistics, on account of the falla-

cies to which they are liable. As for the idea that the phenomena of cholera indicate the efforts of nature to relieve itself of offending matter, he could see no evidence of the existence of such matter in the intestinal discharges, and consequently regarded them as merely the penalty suffered by the patient on account of some deviation from the conditions necessary to health.

Dr. Marguerat replied in defense of the statistics produced by Dr. Lyman, showing that they were of the most trustworthy character, having been taken by Dr. Ross from the records of the hospitals of London and Paris. The statistics most favorable to the proposed method of treatment by weak saline solutions administered freely with cold water, were obtained from the Greville Street Hospital in London, a cholera hospital where the worst forms of the disease were subjected to this treatment with the remarkable result of only 19 per cent of deaths.

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## SELECTED ARTICLES.

### SURGERY.

*The Gutta-Percha Shoe in the Treatment of Talipes.* By Prof. A. C. Post, M. D.

Aout sixteen years ago I was treating a little girl for talipes varus, with a modification of Scarpa's shoes, which I was then in the habit of employing, when troublesome ulceration of the integument occurred from the pressure of the straps which were used to secure the shoes upon the feet. It was evidently a matter of necessity to omit for a time the use of the shoes, until the ulcerated surfaces should have an opportunity to heal. I was much chagrined by the prospects of a long delay in the treatment, especially as the patient resided in the country, and it was quite inconvenient to the parents to keep her for a long time in the city. I was led to reflect on the best means of preventing a return of the deformity towards its original condition, during the period when I should be obliged to suspend the use of Scarpa's shoes. It occurred to me, that a splint or shoe of gutta-percha might be applied in such a manner as to maintain the improvement which had already been gained by the treatment, if not to make some further advance towards a cure of the deformity. I accordingly contrived and applied such an

instrument, keeping it in place by means of a roller bandage. I found that by this means the feet could be maintained in a good position, with very little inconvenience to the little patient; and under appropriate dressings, the ulcerated surfaces soon healed. To my surprise, the deformity yielded more readily to the new treatment than it had done while Scarpa's shoes had been worn, and I felt no disposition to return to the use of the spring shoes after the ulcers had healed. From my experience of the benefits of the simple contrivance which I had used in the case just alluded to, I was induced to employ it in similar cases which were presented to me; and the results were so entirely satisfactory, that I have ever since employed shoes or splints of similar construction in the treatment of infantile club-foot, in preference to the spring shoes which surgeons ordinarily employ for the same purpose. The material which I ordinarily use in the construction of these shoes, is a gutta-percha sheet from a sixteenth to an eighth of an inch in thickness. It is cut of such a shape as to adapt itself to the sole and sides of the foot, leaving a space uncovered on the dorsum of the foot equal to about one-third of the breadth of the foot; it is also adapted to the sides of the leg, extending up two-thirds of the distance to the knee, and leaving a narrow space uncovered before and behind, each space so uncovered being about one-sixth of the circumference of the leg. The material is readily moulded to the shape of the limb, by immersing it for a few seconds in water, at a temperature of 100° Fahrenheit. I am in the habit of moulding the shoes thus heated, over a wooden last made for the purpose. The last is not made after the fashion of a bootmaker's last, but it is shaped like the natural leg and foot, except that the outer side of the foot is made to correspond with the inner, thus obviating the necessity of having separate lasts for the right and left foot. I have sometimes used similar shoes made of felt stiffened with shellac, as manufactured by Dr. Ahl, of Southern Pennsylvania. In order to mould the felt, it must be dipped in water at nearly a boiling temperature, and the hands require to be protected by means of cotton gloves wet with cold water. I am rather inclined to prefer the gutta-percha shoes to those which are made of felt, especially as the former material is more conveniently moulded to its proper shape.

I generally commence the treatment of infantile club-foot by the subcutaneous division of the tendo-Achillis, after which I apply a strip of isinglass plaster over the small wound of the skin. I then have the foot held by an assistant as nearly as possible in its normal position, and while it is so held, I care-

fully apply a roller bandage, so as to cover the foot and leg, beginning the application on the outer side of the ankle. I then apply the gutta-percha shoe, an assistant grasping the leg with one hand, pressing the upper part of the shoe against the sides of the limb, and with the other hand pressing the sole of the shoe against the sole of the foot. While the shoe is then firmly pressed against the leg and foot, I apply a roller bandage firmly, so as to secure it in its place. After the lapse of twenty-four to forty-eight hours, I take off the bandages and shoe, wash the foot, wipe it dry, use passive motion freely in different directions, and then reapply the apparatus as before. The application is repeated at intervals of two or three days, until the foot is brought to its proper shape, when it is put up in a laced boot, lacing to the toes, and having a firm sole and stiff sides, provided with iron braces which extend nearly as high as the knee, and secured by a strap and buckle around the upper part of the leg.

The following are, in my estimation, the advantages of the gutta-percha shoe over Scarpa's shoe, and its various modifications:

1st. Its greater simplicity, and the ease with which it is made. When the material is at hand, the shoe can readily be made in fifteen minutes.

2d. It is much cheaper than the spring shoe.

3d. It is more comfortable to the patient, being lighter, exerting a less injurious pressure, and being less likely to be kicked off a restless child.

4th. It is much less likely to occasion excoriation or ulceration of the integuments.

5th. It expedites the cure, giving a better support to the foot, and bringing it more readily into its normal position.—*N. Y. Medical Record.*

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## MISCELLANEOUS.

### *The Metropolitan Health Bill of New York.*

The earnest desire of the medical profession of this city, and of the community at large, has at length been gratified by the actual passage of a bill for the protection of the health and life of the community. The urgent want for such provisions as are now embodied in the Metropolitan Health Bill has so long been felt, and so many measures have been taken by one party and another to effect the grand object, and the failures in their accomplishment have been so numerous, that it is really a matter

of surprise, even to those who were reasonably sanguine in the matter, that we now have a law which, by the comprehensiveness of its scope and the liberality of its design, is well calculated to meet all the requirements of the case. It is true that the present bill is nothing more than the modification of the original one; but, after all, the alterations which have been made can have no direct tendency, as far as we can see, in interfering with its usefulness. The length of the bill forbids us giving our readers more than a mere synopsis of its provisions.

It creates a Metropolitan Health District, which has the same boundaries as the Metropolitan Police District. This district is in charge of a Board of Health, consisting of four Police Commissioners, the Health Officer of the port, and four Sanitary Commissioners—three of whom must be physicians, and one a resident of Brooklyn. The four Sanitary Commissioners shall hold office "respectively for the terms following—namely, one for one year, one for two years, one for three years, and one for four years; and until their successors shall be appointed and qualified." The term of office of each of the Commissioners, "after the expiration of the terms aforesaid, shall be four years."

The Board is to elect its own officers, and its President shall have all the power and authority given to the "City Inspector, in the six hundred and forty-sixth chapter of the laws of 1865, (passed May 1, 1865,) in respect to the making, awarding, or executing of a contract or contracts for street-cleaning, or any matter thereto pertaining."

The Sanitary Commissioners are to receive a salary of two thousand five hundred dollars per annum, and the Health Officer and Police Commissioners five hundred dollars per annum, as members of the Board; and all are forbidden to accept any other political or municipal office, or any nomination for such office, during their terms. Any member may be removed by the Governor, under the law relating to the removal of sheriffs.

The Board of Health has authority to appoint a Sanitary Superintendent, who must be an "experienced and skilful physician," and who shall, under its direction, "exercise a practical supervision" over all the agents of the Board, except the police. This Sanitary Superintendent is to receive a salary not exceeding five thousand dollars, and is to have two assistants at three thousand five hundred dollars each, one of whom must reside in Brooklyn, and perform the duties of Sanitary Superintendent for that city. He is to report in writing to the Board weekly, or oftener, on the work of his subordinates, and the sanitary condition of the district.

There are, further, to be appointed by the Board, fifteen district inspectors, ten of whom must be skilful physicians, acquainted with the districts in which they serve; and each of these is to report in writing twice each week, "stating what duties he has performed, and where he has performed them, and also such facts as have come to his knowledge connected with the purposes of this act, as are deemed worthy the attention of said Board, or as its regulations may require of him."

The amount of authority vested in the Board is immense; absorbing and exercising as it does exclusively all the powers and duties in regard to the sanitary management of this city and Brooklyn, which have heretofore been exercised by various individuals and bodies under a number of laws and ordinances. Peremptory power is given it to remove nuisances of every description and kind; to cause the cleansing and purification of alleys, streets, sewers, tenement-houses, and water-craft, and to take such other steps as may be necessary to insure the safety from disease of those persons residing in such vicinities.

In cases of impending pestilence, or in the event of the presence of a pestilence, it shall be the duty of said Board "to take such measures, to do and order, and cause to be done, such acts, and to make such expenditures (beyond those duly estimated for or provided) for the preservation of the public health, as it may in good faith declare the public safety and health to demand, and the Governor of the State shall also, in writing, approve. But the exercise of this extraordinary power shall also, so far as it involves such excessive expenditures, require the written assent of at least six members of the Board."

The Board is to keep a register of births and deaths; to inspect weights and measures; to co-operate with the Quarantine Commissioners; to communicate important sanitary information to the health authorities of other parts of the State; to charge no fees; to enforce the laws relating to the sale of unwholesome food and deleterious drugs; to attend to vaccination, and other preventive sanitary measures; to report annually to the Governor of the State the sanitary condition of the district, together with the laws and regulations of the Board, and its expenditures; and on or before the 10th of May in each year, to publish a "Code of Health Ordinances," violations of which are to be punished by the courts by fine.

A very important and useful feature is, the keeping open of a public complaint-book, in which citizens may notify the Commissioners of any nuisances which require to be abated. By this provision the Board will be enabled in a very direct manner to take prompt cognisance of any minor matters which might,

perhaps, escape the vigilance of the subordinate officers. A sanitary engineer is to be employed, who shall survey and examine all premises and localities, and make such reports to the Board as it may order. Ample provisions are made for the employment of the necessary number of clerks and subordinates.

Since the passage of this act, on the 19th of February, the Sanitary Commissioners have been appointed by the Governor, and confirmed by the Senate. The gentlemen composing the Board have been well chosen, and, individually and collectively, are such as have the entire confidence of the profession and the community. They have already organized, have had several meetings, and have fairly initiated the great work which is before them.

Our profession is well represented in the Board by Drs. W. Parker, J. O. Stone, James Crane, of Brooklyn, the Sanitary Commissioners; Dr. John Swinburne, the Health Officer, Dr. E. Harris, the Registrar of Records, and Dr. E. B. Dalton, the Sanitary Superintendent. All of these gentlemen are acknowledged to be well qualified for their respective places. With the ample provisions of the bill, and the efficient aid which they will receive from the Police Department, and from the other members composing the Board, we have a right to expect such an enforcement of sanitary regulations as will tend to make New York a model city for cleanliness, and one of the healthiest upon the globe.—*N. Y. Medical Record*, March 15, 1866.

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## EDITORIAL.

### BOOK NOTICES.

*The Ophthalmoscope as a Means of Investigating the Diseases of the (Brain) Nervous System.*

In the last volume of the "Royal London Ophthalmic Hospital Reports," (1865) is the first part of a most interesting paper, by Dr. J. H. Jackson, Assistant Physician to the National Hospital for Epilepsy and Paralysis, and to the London Hospital.

The paper is worthy the most careful attention of every physician. The author modestly disclaims all pretensions to skill or experience as an oculist, and yet has evidently made himself acquainted in no imperfect manner with the practical use of the

ophthalmoscope, in aiding him as a physician to study the diseases of the nervous system. There is certainly reason why a physician, especially interested in these diseases, should be a good ophthalmoscopist; for with the ophthalmoscope we are able to look upon the end of the optic nerve, upon and through the retina, and watch the abnormal changes as they take place in these structures, so near the brain and so intimately connected with it in their vascular system, in fact the only nervous tissues, spread out so wonderfully to our view. We can give but a few passages from this interesting paper:

"I wish to repeat what I said in a former communication—that I write as a physician, and not as an ophthalmologist. I hope this will be remembered if I am thought to treat amaurosis too diffusely in its general bearings as a symptom, or less precisely in its special one as an eye-disease. To expect from a physician a wide and advanced knowledge of a department of medicine now so special and so rapidly advancing as ophthalmology, would be, to expect what is impossible. My object in writing this article is, simply that I may contribute from my own field of clinical work a few observations on a class of symptoms, the meaning of which it is most desirable to make out for the sake of advancing our knowledge of diseases of the nervous system."

"What we generally see with the ophthalmoscope in amaurosis *in cases of disease of the nervous system*, for instance, in amaurosis complicating epileptiform convulsions, hemiplegia, etc., is a white condition of the optic discs—sometimes called the optic papilla or end of the optic nerve—white atrophy. But there are at least two kinds of white atrophy: (1st) One in which the nerve gradually whitens; and (2d) another in which it becomes white after certain acute changes. The first of these might be called nerve atrophy, and the second cerebral atrophy, but I will speak of them as No. 1 and No. 2 respectively. In No. 1 the disc is more or less white, round, and well margined, and the central vessels do not always seem to be diminished in size. In No. 2 the edge of the disc is not well defined. It sometimes gradually merges into the fundus, and is sometimes ragged. The vessels are generally diminished in size, and there is a scattering of pigment in the neighborhood of the disc."

"Another reason why the physiology of amaurosis is still obscure, is that in acute cases of cerebral diseases, in which we have the patient under our observation from first to last, the amaurosis is often overlooked. This no doubt will seem a

strange statement, but it is quite true, and it is easily accounted for. I am convinced that in all cerebral cases we should accept our patients' statements as to their power of sight with great caution, or rather we should interpret them cautiously, since it is the intra-ocular changes that we run most risk of overlooking. For not unfrequently in the early stage of cerebral amaurosis, whilst there are to be seen most marked changes in and around the optic disc, with for instance considerable effusion of blood, the patient will complain of but slight dimness, and will read small type. I had under my observation a few months ago a patient who used to read the newspaper every day, and who read small print easily in my presence, and yet had the ophthalmoscopic appearances of the acute stage of No. 2 well marked, the effusion of blood around the discs being considerable. This patient subsequently became almost quite blind, his sight eventually failing rather suddenly. He died, and I found at the *post-mortem* examination a tumor at the base of the brain."

"In cases like those just mentioned, the sight sometimes fails suddenly, the ophthalmoscopic appearances remaining nearly the same, *i. e.*, so far as I have been able to estimate them. Now it is most important to keep this in mind, or we might otherwise get a wrong date for the appearance of amaurosis as a symptom. It is well to observe, also, that with the above mentioned ophthalmoscopic signs of fixed damage to the eye, the sight fails occasionally. The patient makes some such remark as this, "I come over blind now and then." It is difficult to account for such variations, but the difficulty is no greater here than in many other organic diseases of the nervous system, which so frequently show an element of periodicity more or less rough in their symptoms. Thus neuralgic pain from fixed organic disease, say of the Casserian ganglion, comes on in paroxysms. To magnify the fact of periodicity in this kind of amaurosis, by saying that periodicity is an element in all diseases of the nervous system, does not, of course, make the cause of the phenomena more evident, but it has the advantage of enlarging our field for studying an important law. At one time I thought these variations of importance as regards the question of reflex amaurosis. I supposed they indicated that the "contraction of the vessels" was intermittent. The most marked case of intermittent vision I have seen was in a patient who had incomplete amaurosis, with a disc of the first kind. In the acute stage of No. 2, it seems to be more often due to mechanical causes, as stooping, than to quasi-physiological ones, like contraction or relaxation of the vessels.

"To be quite certain, we ought in every case of disease of the

nervous system, when our patient complains of but the slightest defect of sight, to examine the eyes with the ophthalmoscope, and even when the effect is said to be but an occasional failure, we ought not to omit to do this, as such failures do not always indicate loss of power of accommodation merely, nor what I have spoken of as Epilepsy of the Retina.

"In the out-patient's room at the Hospital for Epilepsy and Paralysis, and at the London Hospital, there is a gas-lamp for these examinations. (This lamp serves also for the laryngoscope.) When everything is thus ready, it takes very little time to make an ophthalmoscopic examination. It is quite a different thing when one has to make an examination at the home of one of our hospital patients, especially when he is very ill, awkwardly placed in bed in a confined room, and where the only light to be had is, that of a candle, held by the patient's pillow.

"I have known a physician to be in doubt whether a child was blind or not. It was certainly difficult to tell by ordinary tests, as the child was lying in bed, was paralyzed, and was very fretful. Had the ophthalmoscope been used, there need have been no doubt as to whether there were intra-ocular changes or not. I am convinced that patients frequently die blind without any knowledge of it on the part of their friends. Indeed, the record of an acute case of cerebral disease must be considered to be imperfect, if the eyes have not been examined with the ophthalmoscope."

"*It is, I submit, imperative in all cases of severe cerebral disease, at all events in cases of an acute kind, to examine the eyes with the ophthalmoscope, whether the patient complains of defect of sight or not.* I do not say that it is important as a guide to treatment, but it is absolutely necessary if cases are to be used as materials for scientific purposes. In short, in many cases we are bound to record, not only what the patient tells us, but what we see with the ophthalmoscope."

"Moreover, the above note shows that, early in a case, there may be no marked ophthalmoscopic signs to give enough definiteness to "dimness of sight" attending severe headache, to enable us to recognise in it a special symptom of cerebral disease. Now I by no means wish to imply that "dimness of sight, with a headache is a serious thing," but that it is always imperative to view this series of symptoms most carefully, and especially if the pain be severe, or unusual, and, above all, if attended by urgent, purposeless vomiting. Without coming to any positive conclusion, either to alarm our patients or to fetter our own therapeutical proceedings, we certainly ought to keep

our minds open to the fact that such symptoms do sometimes herald severe and often fatal cerebral disease.

"Severe headaches are, I think, too frequently, especially if the patient be subject to them, put down to gastric or abdominal disease. Now I think it is at least, just as likely that severe pain in the head is due to disease within the head, as that pain in any other part is due to disease of that part. And although the instances may be rare, I repeat that we do know that 'bilious' headaches sometimes herald severe brain disease. Certainly, pain in an unusual position, as at the vertex or in the temples, should receive most careful attention and wide consideration."

Thirteen cases of nervous diseases, principally cerebral, in which there were amaurotic symptoms, are related, as illustrating the importance of the subject. We look with interest for the remainder of Dr. Jackson's paper.

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*Intramural Interments in Populous Cities, and their Influence upon Health and Epidemics.* By JOHN H. RAUCH, M. D., Chicago. 1866. Pp. 68.

This interesting pamphlet appears at a time which insures its favorable reception by a community already awakened to a sense of the necessity of hygienic reform. It presents a concise historical retrospect of the customs pertaining to sepulture, from the earliest antiquity to the present epoch. This is followed by a scientific exposition of the influences prejudicial to health which originate in the putrefaction of animal matter, and the essay is concluded by an application of the doctrines thus deduced to the existing state of facts in Chicago.

Turning from these pages to the chronicles of the ancient world, we are tempted for the moment to believe that the boasted civilization of the nineteenth century after Christ, is below the mark of the nineteenth century before Christ. One cannot but dwell with pleasure upon the age of Roman greatness, when the seven-hilled city was drained by a system of sewers which, though commenced at a period so distant that the date of their construction is lost among the myths of antiquity, were built in a manner so perfect, that even to our own

time hardly a single stone has fallen from its place: magnificent conduits, actually navigated by the inspectors; thoroughly cleansed by the unfailing torrents which poured from the distant Appenines through many an aqueduct, the work of wealthy noblemen by whom the public works of the city were undertaken without expense to their fellow-citizens.

But it is to an age still more remote than the Roman that we must look for the most perfect system of sanitary government that the world has ever known. The pages of Herodotus describe an ancient civilization on the banks of the Nile, which will never cease to excite the wonder of mankind. The Egyptian race seem to have passed through none of the progressive stages which have marked the growth of other nations, but they appear upon the stage of the world with a complete system of religion, of laws and of customs which no succeeding generation could improve. The story of those ancient dynasties and the pomp and splendor of the Egyptian hierarchy, are familiar as the annals of our own people, but the care with which the hygienic interests of the inhabitants were guarded may not be so generally known. Many of the requirements of the Mosaic law were merely intended as sanitary precautions, borrowed from the customs of the people by whom the Israelites had been held in bondage. Circumcision, abstinence from pork, the laws pertaining to the purification of the sexes, were all enforced by the Egyptian priesthood long before the days of Abraham. So also with respect to the burial of the dead: it was not sufficient that the remains of human beings should be embalmed and conveyed to the catacombs, but no animal was allowed to remain above ground after life became extinct. The bodies of cattle were interred until the flesh was consumed, and then the bones were removed with sacred rites to certain appointed receptacles, remote from the habitation of men. Dead cats, dogs and birds were all embalmed, and their mummies were consigned to the catacombs. No country was ever in a condition more cleanly and salubrious than was Egypt, before the invasion of Grecian licence and corruption. Nor were these sanitary measures difficult to sustain. The cunning priests invested all their requirements with the sanctity of re-

ligion; consequently, when the embalming of a cat or the sepulture of an owl was considered a rite most essential to procure the favor of the Deity, it was easy to enforce a law which might otherwise have been most obnoxious. As the age of superstition, however, passed away, and as men discovered that these rites possessed no real religious merit, they gradually fell into disuse; a whole nation was no longer to be seen, for three days of each month, taking clysters, emetics and purgatives; the dead bodies of the lower animals were slipped into the sacred Nile, without fear of mortally offending the divinity of the stream; and the Egyptians gradually lapsed into that state of filth and squalor which characterizes the majority of mankind.

Delivered from the fetters of superstition and despotism, the world has retrograded in respect of all sanitary observances. Nothing less than the most powerful coercion is sufficient to enforce the habit of cleanliness, and since experience has shown that the ordinary forms of government are insufficient to protect a civic population against itself, and it is no longer possible by investing the subject with the sanctity of religion, to appeal to the strongest motives of the human soul, but one resource remains. The care of the public health must be confided to a commission endowed with despotic powers, and independent of all political control. The politicians and the free people have failed to secure the best interests of the world; the era of priestly dominion seems to be no longer possible; the whole matter must be confided to the physicians, else every city will become what New York has been and what Chicago is fast approaching.

We cannot too cordially commend the essay of Dr. Rauch to the general public as well as to the medical profession. His remarks upon cholera are well timed and eminently practical. If the pestilence should invade our country, we trust that his admirable idea of quarantine hospitals on the lines of railway outside of the town will be acted upon by the authorities who have the matter in charge.

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A liberal price will be paid for the following Nos. of the Chicago Medical Journal: Nos. 1 and 4, of Vol. 8, whole series. Address Editors Journal.

## CODEIA.

We do not presume in these few lines to afford the readers of the Journal any new ideas regarding Codeia. Its peculiar effects, as shown by experiments, are sufficiently well described by several authors. We feel certain, however, that many physicians, from disuse of the remedy in consequence of its high price, have neglected to prescribe it in cases where it may be used with great advantage. And it is here our object simply to urge the trial of Codeia as an anodyne, where it is known by experience that other forms of opium produce very unpleasant effects. We have recently observed the most happy influence of the remedy upon four patients, who often require anodynes for different painful affections, and who always suffered extremely from the secondary effects of morphine and opium however given.

The dose of Codeia may vary, according to circumstances, from gr. ½ to gr. j. It is worthy of notice that the system becomes sooner accustomed to large doses of this anodyne than to corresponding portions of morphine.

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The contribution on the use of Tannin in pruritus vulvæ, page 560 of the last volume of the Journal, should have been accredited to Dr. G. F. Keiper, of Quincy, Indiana. In each of the last two lines of the page, the quantity should be ℥j, instead of ʒj.

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Dr. H. M. LYMAN has removed his Office to 169 Dearborn Street, opposite the Post Office.

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